<u>IN THE CLAIMS:</u>

This listing of claims replaces all prior versions, and listings of claims, in the application:

1. (Currently Amended) A <u>computer implemented</u> method of screening an asymptomatic patient's mammogram to ~~identify~~ <u>detect</u> abnormalities <u>in the asymptomatic patient's mammogram, wherein screening the asymptomatic patient's mammogram to detect abnormalities is performed prior to classifying the detected abnormalities as being malignant or benign</u>, the method <u>of screening</u> comprising ~~the steps of~~:

   calculating a <u>detection</u> risk probability value associated with an asymptomatic patient, the <u>detection</u> risk probability value calculated from an array of risk factors associated with breast cancer;

   selecting a computer algorithm to ~~identify~~ <u>detect</u> abnormalities in the asymptomatic patient's mammogram;

   identifying a standard threshold of the computer algorithm for <u>detecting</u> ~~identifying~~ false positive abnormalities, wherein the standard threshold is independent of the array of risk factors associated with the asymptomatic patient;

   adjusting the standard threshold of the computer algorithm for <u>detecting</u> ~~identifying~~ false positive abnormalities in response to the <u>detection</u> risk probability value associated with the asymptomatic patient;

   <u>detecting abnormalities in the asymptomatic patient's mammogram by</u> applying the computer algorithm using the adjusted standard threshold ~~to identify abnormalities in the asymptomatic patient's mammogram~~; and

   producing an electronic output image of the asymptomatic patient's mammogram that visualizes the <u>detected</u> ~~identified~~ abnormalities.

2. (Original) The method of claim 1 wherein the risk factors include relative risk values.

3. (Original) The method of claim 1 wherein the risk factors include odds ratio values.

4.   (Original) The method of claim 1 wherein the risk factors include absolute risk values.

5.   (Previously Presented) The method of claim 1 further comprising the steps of:

obtaining a patient-specific breast tissue density value derived by automated means from the asymptomatic patient's mammogram; and

integrating the breast tissue density value in the risk probability value.

6.   (Currently Amended) The method of claim 1 further comprising the step of flagging the mammogram having detected ~~identified~~ abnormalities as generating a positive result for breast cancer requiring additional analysis.

7.   (Currently Amended) The method of claim 1 further comprising the step of flagging the mammogram not having detected ~~identified~~ abnormalities as generating a negative result for breast cancer.

8.   (Canceled)

9.   (Currently Amended) The method of claim 1 further comprising the steps of:

providing a data entry interface adapted to input the array of risk factors associated with the patient;

digitally acquiring the asymptomatic patient's mammogram; and

applying the algorithm to the mammogram to detect ~~find~~ abnormalities.

10. (Original) The method of claim 9 further comprising the step of storing the array of risk factors on an electronic storage medium communicatively coupled to the digitally acquired mammogram.

11. (Original) The method of claim 9 wherein the mammograms associated with abnormal risk findings are electronically presented with computer aided enhancement.

12. (Original) The method of claim 1 wherein the array of risk factors includes at least one factor selected from a group of factors including age, racial background, geographic

background hormonal data, breast size, weight and height, pregnancies, breast surgeries, breast water content, transverse relaxation time, family medical history, previous biopsies, length of reproductive years, menopausal status, parity, age of menarche, age of menopause, involution characterization, density time dependency, density dependent texture, dietary factors, abnormality spatial location and physical activity.

13. (Currently Amended) The method of claim 1, wherein the step of adjusting the standard threshold of the computer algorithm for <u>detecting</u> ~~identifying~~ false positive abnormalities in response to the risk probability value associated with the asymptomatic patient further comprises:

identifying an average value for the probability value;

increasing the standard threshold if the probability value is higher than the average value; and

decreasing the standard threshold if the probability value is lower than the average value.

14. (Currently Amended) A <u>computer implemented</u> method of screening an asymptomatic patient's mammogram to ~~identify~~ <u>detect</u> abnormalities <u>in the asymptomatic patient's mammogram, wherein screening the asymptomatic patient's mammogram to detect abnormalities is performed prior to classifying the detected abnormalities as being malignant or benign</u>, the method <u>of screening</u> comprising ~~the steps of~~:

identifying an average risk for breast cancer based on a set of risk factors;

identifying an asymptomatic patient as being either at a high risk for breast or at a low risk for breast cancer based on the set of risk factors for breast cancer for the patient, wherein the patient is at a high risk for breast cancer if their risk is above the average risk and the patient is at a low risk for breast cancer if their risk is below the average risk;

identifying a standard false positive detection threshold for the identification of abnormalities in a mammogram;

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adjusting the standard false positive detection threshold by increasing the standard false positive detection threshold if the asymptomatic patient is at a high risk for breast cancer and decreasing the standard false positive detection threshold if the patient is at a low risk for breast cancer;

evaluating the asymptomatic patient's mammogram to <u>detect</u> ~~identify~~ abnormalities based on the adjusted false positive detection threshold; and

producing an electronic output image of the asymptomatic patient's mammogram that visualizes the <u>detected</u> ~~identified~~ abnormalities.